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Tephrellini (Diptera: Tephritidae: Tephritinae) from Madagascar

by

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Ten species of Tephrellini (= Aciurini) are recorded from Madagascar, with one genus and four species described as new. These are: *Metasphenisca grandidieri* (Bezzi), *M. pallidifemur* **sp. nov.**, *Paraciura perpicillaris* (Bezzi), *Malagaciura* **gen. nov.**, with type-species *M. stuckenbergi* **sp. nov.**, *Tephraciura flavimacula* **sp. nov.**, *T. tulearensis* **sp. nov.**, an undescribed species of *Tephraciura*, *Sphaeniscus sexmaculatus* (Macquart), *Gymnaciura austeni* (Munro) and *Paraspheniscoides binarius* (Loew). *Aciura afghana* (Hering), **comb. nov.** from Afghanistan is transferred from *Tephrella* Bezzi.

INTRODUCTION

The species discussed here traditionally have been placed in the subfamily Aciurinae, a group that has long defied proper delineation. Recently (Hancock 1991), I transferred the group to a tribe within the Tephritinae and amalgamated it with the Tephrellini, that name having nomenclatural priority. The limits of the group were redefined, with many previously included genera being removed to other tribes. The *Platensina* group of genera, often considered to belong to the Aciurinae, was transferred to the Tephritini and accordingly is not treated in the present study. This group is known to be represented in Madagascar by several undescribed species of *Platensina* Enderlein, *Pliomelaena* Bezzi, *Bezzina* Munro and *Pseudafreutreta* Hering. As in the case of *Hendrella* Munro, species in these genera have the humeral calli and pleura partially fulvous, not entirely black. Both tribal names Tephrellini Hendel, 1927 and Platensinini Munro, 1937 have priority over the name Aciurini Hering, 1941.

The presence of pale or dark postorbital bristles has been used frequently as a character to separate the Aciurini from the Tephrellini but as previously noted (Hancock 1991), pale or dark bristles occur within the genera *Metasphenisca* Hendel and *Oxyaciura* Hendel. This is also the case with *Aciura* Robineau-Desvoidy; *A. coryli* (Rossi) has dark occipital bristles whereas the very similar *A. kashmirica* Zaka-ur-Rab and *A. afghana* (Hering), **comb. nov.** have pale occipital bristles. The latter species was originally described as a species of *Tephrella* Bezzi from Afghanistan (Hering 1961).

Only two species of Tephrellini have been recorded previously from Madagascar, *Metasphenisca grandidieri* (Bezzi) and *Sphaeniscus sexmaculatus* (Macquart) (Bezzi 1924; Bezzi & Lamb 1926). Elsewhere in the Malagasy subregion, *S. sexmaculatus* is known from Mauritius, Réunion and Rodrigues (Macquart 1843; Bezzi & Lamb 1926; Orian

1962) and *Parasphenisoides binarius* (Loew) is known from Mauritius (Orian 1962). Ten species, of which one remains undescribed, are now known from Madagascar. Of these, six are endemic.

Depositories for examined material are abbreviated as follows: MNHN = Muséum National d'Histoire Naturelle, Paris; NCIP = National Collection of Insects, Pretoria; NHMB = Naturhistorisches Museum, Basel; NMSA = Natal Museum, Pietermaritzburg.

Subfamily TEPHRITINAE

Tribe TEPHRELLINI

Seven genera and ten species are known from Madagascar. Several species also occur on the African mainland and all the endemic species appear to have Afrotropical affinities. Generic classification and synonymies follow Hancock (1991). Some additional African host records were provided by Le Pelley (1959): *Ypsilomena compacta* (Bezzi) and *Katonaia arushae* Munro from *Leonotis* (Labiatae); *Pediapelta aenea* Munro from *Coleus* (Labiatae); *Y. compacta* from *Lantana* (Verbenaceae: this is doubtful and requires confirmation). No host data is available for the Madagascan material but in Africa known larval hosts are the seed capsules or flowers of Acanthaceae, Labiatae or Verbenaceae (Munro 1947).

Key to Madagascan species of Tephrellini

1 4 scutellar bristles; occipital bristles black 2
— 2 scutellar bristles; occipital bristles black or white 4
2 Wings banded and with only one hyaline indentation beyond stigma ..... *Sphaeniscus sexmaculatus* (Macquart)
— Wings not banded and with two hyaline indentations beyond stigma in marginal cell 3
3 Hyaline indentations almost linear; femora black ..... *Metasphenisca grandidieri* (Bezzi)
— Hyaline indentations broad, more or less triangular; femora red-brown ..... *Metasphenisca pallidifemur* **sp. nov.**
4 Occipital bristles white; wing base dark with a hyaline spot in outer costal cell 5
— Occipital bristles black; wing base not as above 7
5 Dark bar in marginal cell yellow; first posterior cell with a small hyaline spot ..... *Tephraciura flavimacula* **sp. nov.**
— Dark bar in marginal cell brown as in rest of pattern; first posterior cell with a large white spot or wholly brown 6
6 First posterior cell without a white spot; inner hyaline indentation in third posterior cell pointed towards humeral vein ..... *Tephraciura tulearensis* **sp. nov.**
— First posterior cell with a large white spot; inner hyaline indentation in third posterior cell pointed towards stigma ..... *Tephraciura* **sp. indet.**
7 1 superior and 3 inferior orbital bristles; marginal cell with one large and one small hyaline indentations ..... *Parasphenisoides binarius* (Loew)
— 2 superior and 2 or 3 inferior orbital bristles; marginal cell with two large hyaline indentations 8
8 Four hyaline indentations on hind margin of wing, the outer one crossing vein M_{1+2}; wings not elongate or narrowed at base; anal cell outwardly pointed .... *Gymnaciura austeni* (Munro)
— Three hyaline indentations on hind margin of wing, none crossing vein M_{1+2}; wings elongate and narrowed at base; anal cell outwardly rounded 9
9 2 inferior orbital bristles; squamae white; abdomen rounded; wing base dark with a hyaline band and no hyaline spot at base of discal cell ..... *Malagaciura stuckenbergi* **sp. nov.**

— 3 inferior orbital bristles; squamae black; abdomen oval; wing base hyaline with a dark band and with a hyaline spot at base of discal cell ..... *Paraciura perpicillaris* (Bezzi)

Genus ***Metasphenisca*** Hendel

Metasphenisca Hendel, 1914: 92.

Isoconia Munro, 1947: 100.

Twenty-six Afrotropical and Oriental species belong here, including two endemic species in Madagascar. For a discussion of the synonymy of *Isoconia* Munro see Hancock (1991). Known hosts of this genus are the seed capsules (rarely stem galls) of *Barleria* and *Blepharis* (Acanthaceae).

Metasphenisca grandidieri (Bezzi)

Aciura grandidieri Bezzi, 1924: 88.

Described by Bezzi (1924) from a pair collected in 1891 by A. Grandidier at Imerina, Foret E. d'Androngoloaka. This species is distinguised by the almost linear hyaline wing markings and blackish femora.

Metasphenisca pallidifemur sp. nov., Fig. 1

The red-brown femora and broader hyaline wing markings differentiate this species from *M. grandidieri*, whilst details of the wing pattern plus red-brown femora differentiate it from all other known species. It appears closest to *M. nigriseta* (Bezzi) but has two well developed superior orbital bristles and paler femora; also the outer of the posterior hyaline indentations is less inclined. The specific name is derived from the relavitely pale femora.

FEMALE. Length of body (excluding ovipositor), 5,0 mm; of wing, 5,0 mm.

Head. Length: height: width: 1: 1,45: 1,75; red-brown. Frons narrowing slightly anteriorly, 0,36 times width of head at widest part, pubescent; bristles red-brown, 3 inferior orbitals, 2 superior orbitals, the upper well developed. Lunule large, semicircular. Ocellar triangle black, ocellar bristles red-brown, postocellars abraded. Vertex with vertical and postvertical bristles abraded. Genal bristles red-brown. Face brown, paler laterally. Antennae shorter than face, fulvous; third segment apically rounded; arista pubescent. Occiput blackish-brown, with a row of red-brown occipital bristles, interspersed with shorter, fine dark setae.

Thorax. Mesonotum shining blackish-brown with pale pubescence and fine, pale dust. Pleura, postnotum and scutellum blackish-brown. Bristles well developed and blackish-brown: 1 humeral, 1 presutural, 2 notopleurals, 1 anterior supra-alar, 2 posterior supra-alars, 2 dorsocentrals, 2 prescutellars, 1 mesopleural, 1 pteropleural, 1 sternopleural, 4 scutellars; scapulars absent; dorsocentrals placed between the anterior supra-alars and the suture; apical scutellars as long as the basals and crossed near apex. Legs with femora red-brown, tibiae and tarsi fulvous; fore femora with 4 ventral bristles; mid tibiae with an apical black spine. Halteres blackish-brown, fulvous at base. Wing (Fig. 1) with vein R_{4+5} sparsely setose; costa with one long bristle at base of stigma; r-m cross-vein beyond middle of discal cell; pattern blackish-brown except hyaline markings as follows: lower half of second costal cell, across extreme base of second basal cell to wing base, leaving a dark band along costa to stigma; two narrow triangular indenta-

tions beyond stigma, crossing vein R_{4+5} on either side of r-m cross-vein; three elongate indentations from posterior margin, one in second and two in third posterior cells, the inner one with its axis directed just beyond stigma, the outer one crossing i-m cross-vein at its upper corner, the two in third posterior cell just crossing into discal cell; alula hyaline; anal cell acuminate, the posterior extension short. Wing with several argents (shiny areas in the dark pattern; see Munro 1947) as follows: base of submarginal cell; base of discal cell; on either side of r-m cross-vein; diagonally across outer portion of submarginal cell, crossing vein R_{2+3} into marginal cell; outer portion of first posterior cell alongside vein R_{4+5}.

Abdomen. Oval; shining red-brown, darker along posterior margins of tergites, with fine pubescence. Oviscape blackish-brown, length 1,3 mm; aculeus not extruded. Tergite VI almost as long as tergite V.

MALE. Unknown.

MATERIAL EXAMINED. Holotype ♀: MADAGASCAR (NORTH): Montagne des Francais, Diego-Suarez district, ii. 1959, Andria Robinson (MNHN).

DISTRIBUTION. Only known from northern Madagascar.

Genus ***Paraciura*** Hering

Paraciura Hering, 1942: 284.

Biretmus Munro, 1947: 134.

The sole described species *P. perpicillaris* (Bezzi) is widespread on the African mainland. The Madagascan population may be specifically distinct but the differences appear to be too slight to substantiate such status at the present time. A further possibly distinct population occurs in West Africa (A. Freidberg, personal communication). Hosts are unknown.

Paraciura perpicillaris (Bezzi), Fig. 2

Aciura perpicillaris Bezzi, 1920: 253.

Madagascan specimens differ from mainland examples in having two distinct argents on the wing, one each in submarginal and first posterior cells, below veins R_{2+3} and R_{4+5} respectively. A teneral male has the argents hyaline. There appear to be no differences in the male terminalia (A. Freidberg, personal communication).

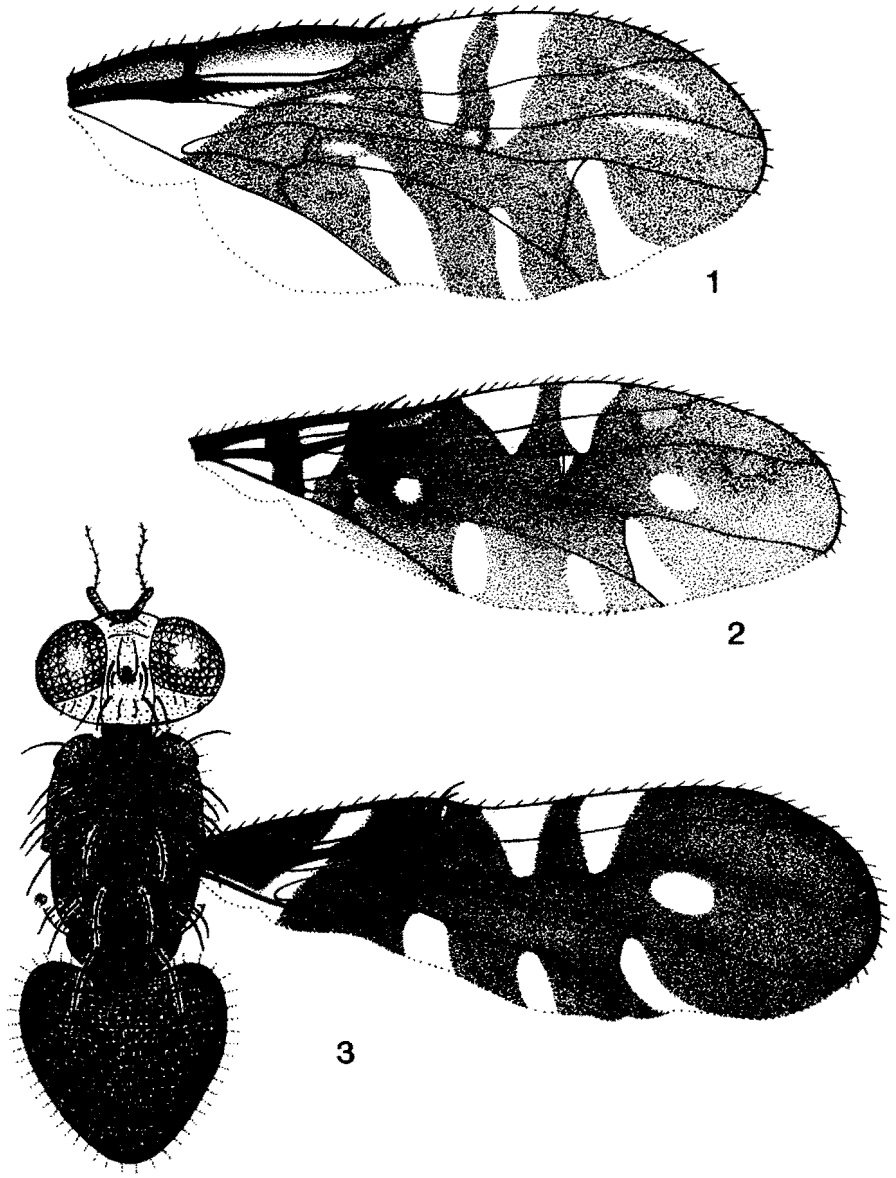
MATERIAL EXAMINED. MADAGASCAR (EAST): 2 ♂, Ranomafana (Ifanadiana district), 10 & 11. ix. 1958, F. Keiser (NHMB); 1 ♂, Imerimandroso, Rive N. du lac Aloatra, vi. 1921, R. Decary (MNHN); 3 ♀, Perinet (Moramanga district), 6. x. 1958, F. Keiser (NHMB). (CENTRAL): 1 ♂, Tananarive, 18. vii. 1958, F. Keiser (NHMB); 1 ♂, Tsimbazaza, Tananarive (NCIP).

DISTRIBUTION. East and West Africa and Madagascar.

Genus ***Malagaciura*** nov.

Type-species *Malagaciura stuckenbergi* **sp. nov.**

Differentiated from related genera in the Tephrellini by the following combination of characters: Head oval; frons bare, with two inferior and two superior orbital



Figs 1–3. 1 *Metasphenisca pallidifemur* **sp. nov.**, wing; 2 *Paraciura perpicillaris* (Bezzi), wing; 3 *Malagaciura stuckenbergi* **gen. et sp. nov.**, male, dorsal habitus.

bristles; ocellar bristles well developed; occipital bristles thin and black, few in number; antennae shorter than face, arista with long pubescence. Thorax shining black, with a weakly developed mesopleural suture, scapular bristles absent and dorsocentral bristles placed between anterior supra-alar bristles and suture; two scutellar bristles. Wing with stigma short but distinct and with two pronounced costal bristles at its base, the basal one longer than the other; with hyaline indentations and a large spot in first posterior cell; anal cell blunt outwardly; wing base narrow, the apex broad; squamae white. Abdomen rounded.

This genus keys to *Paraciura* Hering (as *Biretmus* Munro) in Munro's (1947) key but that genus differs in having three inferior orbital bristles, black squamae, a narrow abdomen and a different wing shape (Figs 2, 3). The name is derived from Malagasy plus *Aciura*. It is considered feminine in gender.

Malagaciura stuckenbergi sp. nov., Fig. 3

This species may be recognized by the generic characters given above. It is named after the collector, Dr B. R. Stuckenberg.

MALE (Fig. 3): Length of body, 3,0 mm; of wing, 4,0 mm.

Head. Length: height: width: 1: 1,2: 1,4; blackish-brown. Frons narrowing slightly anteriorly, 0,43 times width of head at widest part, without pubescence, blackish-brown towards vertex, becoming red-brown medially and fulvous anteriorly; bristles black, 2 inferior orbitals, 2 superior orbitals. Lunule small, semicircular. Ocellar triangle black, ocellar and postocellar bristles present. Vertex with inner and outer vertical bristles present, postverticals absent. Genal bristle present. Face yellow, brown along mouth border. Antennae shorter than face, fulvous; third segment apically rounded; arista pubescent. Occiput blackish-brown, with a row of 3 thin black occipital bristles interspersed with short, fine black setae.

Thorax. Mesonotum shining blackish-brown with sparse fine pubescence and fine pruinescence. Pleura dark red-brown. Postnotum and scutellum blackish-brown. Bristles well developed and black, as for *Metasphenisca pallidifemur* except only 2 scutellars, the apical pair absent. Legs dark red-brown except tarsi and apices of fore and mid tibiae fulvous; fore femora with 2 ventral bristles; mid tibiae with an apical black spine. Halteres brown. Squamae white. Wing with base greatly narrowed; vein R_{4+5} bare; costa with one long and one shorter bristles at base of stigma; r-m cross-vein close to end of discal cell; pattern blackish-brown with hyaline markings as follows: a diagonal band at base; two triangular indentations beyond stigma, reaching vein R_{4+5}, the outer directly above r-m cross-vein; a large oval spot in first posterior cell; three inwardly oblique indentations from hind margin, one in second and two in third posterior cell; anal cell blunt.

Abdomen. Rounded; shining blackish-brown with fine pubescence. Male genitalia not studied.

FEMALE. Similar to male but face brown. Oviscape black, length 0,75 mm; aculeus not exposed. Abdominal tergite VI almost as long as tergite V.

MATERIAL EXAMINED. Holotype ♂: MADAGASCAR (CENTRAL): Plateau Soaindrana, 2060 m, Andringitra-Ambalavao, 14–17. i. 1958, B. Stuckenberg (NMSA);

1 ♀ paratype, Col Mahafompeno, 2200–2400 m, dct Ambatolampy, 11–15. xii. 1957, B. Stuckenberg (NMSA).

DISTRIBUTION. Known only from central Madagascar.

Genus ***Tephraciura*** Hering

Tephraciura Hering, 1941b: 108.

Jacotella Munro, 1947: 136.

Ten Afrotropical and Oriental species are known, including three endemic species from Madagascar. One of these, known only from a damaged specimen with no definite locality data, remains undescribed. Known hosts of the genus are the flowers of several species of Acanthaceae.

Tephraciura flavimacula sp. nov., Fig. 4

The yellowing of the dark bar in the marginal cell and the small hyaline spot in the first posterior cell separate this species from others found in Madagascar, whilst the dark wing base and hyaline spot in the outer costal cell separate it from all mainland African and Oriental species. The specific name is derived from the yellow wing marking.

MALE. Length of body, 4,3–4,8 mm; of wing, 4,8–5,3 mm.

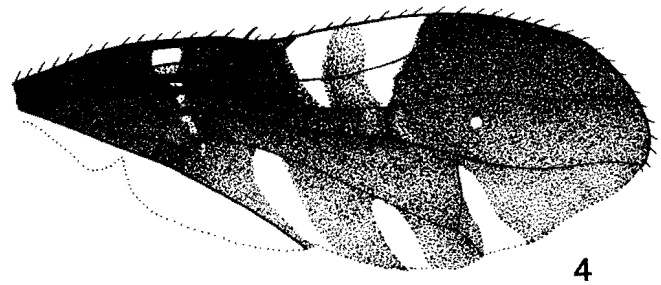
Head. Length: height: width: 1: 1,4: 1,65; red-brown. Frons narrowing slightly anteriorly, 0,37 times width of head at widest part, pubescent; bristles black, 3 inferior orbitals, 2 superior orbitals, the upper weak. Lunule large, semicircular. Ocellar triangle black, ocellar bristles black, postocellars white. Vertex with inner vertical bristles black, outer verticals and postverticals white. Genal bristle black. Face brown. Antennae shorter than face, brown; third segment apically rounded; arista pubescent. Occiput blackish-brown, with a row of 3–6 thin white occipital bristles, similar in size to the postocellars and postverticals and interspersed with short, fine dark setae.

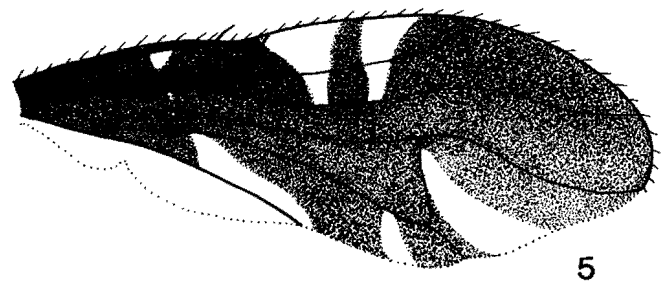
Thorax. Mesonotum shining black with sparse pale pubescence and fine dust. Pleura blackish-brown. Postnotum and scutellum black. Bristles well developed and black, as for *Malagaciura stuckenbergi*. Legs dark red-brown except for tibiae and tarsi fulvous; fore femora with 4 ventral bristles; mid tibiae with an apical black spine. Halteres blackish-brown. Wing (Fig. 4) with vein R_{4+5} sparsely setose; costa with one long bristle at base of stigma; r-m cross-vein well beyond middle of discal cell; pattern blackish-brown except bar in marginal cell fulvous, with hyaline markings as follows: a squared spot in second costal cell; two triangular indentations beyond stigma, reaching vein R_{4+5}, the outer directly above r-m cross-vein; a small spot in first posterior cell; three elongate indentations from posterior margin, one in second posterior cell along i-m cross-vein, two in third posterior cell; alula hyaline; anal cell blunt.

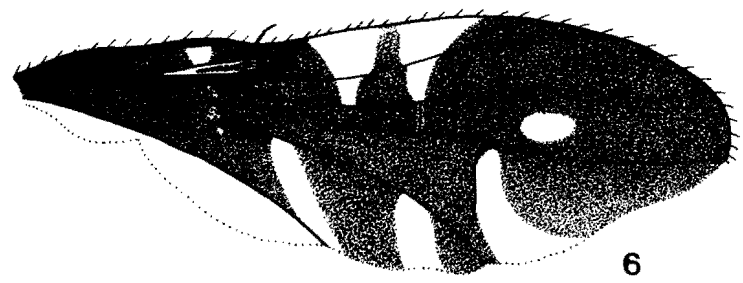
Abdomen. Oval; shining black with fine pubescence. Genitalia brown.

FEMALE. Similar to male but face red-brown. Oviscape black, length 1,1 mm; aculeus elongate and apically pointed. Tergite VI almost as long as tergite V.

MATERIAL EXAMINED. Holotype ♂: MADAGASCAR (NORTH): Montagne d'Ambre, Les Roussettes, 1100 m, ix & xii. 1958, Andria Robinson (MNHN); 7 ♂, 7 ♀ paratypes, same data as holotype (MNHN & NCIP). (EAST): 1 ♂ paratype, Marojejy,







Figs 4–6. 4 *Tephraciura flavimacula* **sp. nov.**, wing; 5 *Tephraciura tulearensis* **sp. nov.**, wing; 6 *Tephraciura* sp. indet., wing.

Sambava district, Andasy II, 1300 m, xii. 1958, (E.) Raharizonina (MNHN); 2 ♂ paratypes, Perinet, xii. 1955, B. Stuckenberg (NMSA). (CENTRAL): 1 ♂ paratype, Manjakatompo forest station, Ankaratra Massif, i. 1956, B. Stuckenberg (NMSA); 1 ♂ paratype, Ambohitantely, 1600 m, Ankazobe district, 6. i. 1958, B. Stuckenberg (NMSA).

DISTRIBUTION: Madagascar.

Tephraciura tulearensis sp. nov., Fig. 5

The dark wing base and hyaline spot in the costal cell also separates this species from all mainland African and Oriental species in the genus. From other Madagascan species it differs in the brown band in the marginal cell, absence of a white spot in the first posterior cell and the inclination of the inner posterior hyaline indentation, which has its axis directed towards the humeral vein rather than the stigma. The specific name is derived from the type-locality.

FEMALE. Length of body (excluding ovipositor), 3,5 mm; of wing, 3,5 mm.

Head. Length: height: width: 1: 1,4: 1,6; red-brown. Frons narrowing slightly anteriorly, 0,44 times width of head at widest part, pubescent; bristles red-brown, 3 inferior orbitals, 2 superior orbitals, the upper shorter than the lower. Lunule large, semicircular. Ocellar triangle black, ocellar bristles red-brown, postocellars white. Vertex with inner vertical bristles red-brown, outer verticals and postverticals white. Genal bristle red-brown. Face red-brown. Antennae shorter than face, brown; third segment apically rounded; arista pubescent. Occiput blackish-brown, with a row of 4 thin white occipital bristles, similar in size to the postocellars and postverticals and interspersed with short, fine dark setae.

Thorax. Mesonotum shining blackish-brown with sparse pale pubescence and fine dust. Pleura, postnotum and scutellum blackish-brown. Bristles well developed and red-brown, as for *Malagaciura stuckenbergi*. Legs with femora blackish-brown, tibiae red-brown and tarsi fulvous; fore femora with 2 ventral bristles; mid tibiae with an apical red-brown spine. Halteres blackish-brown. Wing (Fig. 5) with vein R_{4+5} sparsely setose; costa with one long bristle at base of stigma; r-m cross-vein well beyond middle of discal cell; pattern blackish-brown with hyaline markings as follows: a triangular spot in second costal cell; two triangular indentations beyond stigma, reaching vein R_{4+5}, the outer directly above r-m cross-vein; three elongate indentations from posterior margin, one in second posterior cell along i-m cross-vein, two in third posterior cell, the inner one running along anal vein with its axis pointed towards humeral vein; alula hyaline; anal cell blunt.

Abdomen. Oval; shining blackish-brown with fine pubescence. Oviscape blackish-brown, length 0,5 mm; aculeus elongate and apically pointed. Tergite VI almost as long as tergite V.

MALE. Unknown.

MATERIAL EXAMINED. Holotype ♀: MADAGASCAR (WEST): 16 km Est de Tulear, 16. iv. 1948, R. P(aulian) (MNHN).

DISTRIBUTION: Known only from southwest Madagascar.

Tephraciura sp. indet., Fig. 6

A specimen lacking the abdomen, one mid and both hind legs fits the description of *T. tulearensis* except for differences in the wing pattern (Fig. 6), having the posterior hyaline indentations less steeply inclined and a large oval white spot in the first posterior cell. It is certainly a distinct species but is not described at the present time.

MATERIAL EXAMINED. MADAGASCAR: 1 specimen, locality data faded and unreadable (MNHN).

Genus ***Sphaeniscus*** Becker

Sphaeniscus Becker, 1908: 138.

Pseudospheniscus Hendel, 1913: 82.

Spheniscomyia Bezzi, 1913: 146.

Five species are known in this widespread genus, with one occurring in Madagascar. Hosts are the flowers of various species of Labiatae. The Fijian *S. binoculatus* (Bezzi) was inadvertently omitted by Hancock (1991).

Sphaeniscus sexmaculatus (Macquart)

Urophora sexmaculata Macquart, 1843: 379.
Ortalis sanctaemariae Bigot, 1859: 548.
Acidia melania Bezzi, 1908: 193.

Madagascan specimens do not differ from mainland African examples. It has been recorded previously from Ile St.-Marie, off the east coast of Madagascar (Bigot 1859, Bezzi & Lamb 1926).

MATERIAL EXAMINED. MADAGASCAR (SOUTH): 1 ♂, 1 –, Bekily, vii. 1936 & ix. 1938, A. Seyrig (MNHN).

DISTRIBUTION. Widespread from northeast Africa to Zimbabwe, South Africa and Namibia; also known from Madagascar, Réunion (type-locality), Mauritius and Rodrigues.

Genus ***Gymnaciura*** Hering

Gymnaciura Hering, 1942: 284.

Tanaosema Munro, 1947: 164.

Two African species are placed here, with one recorded also from Madagascar. Hosts are unknown but related genera (such as *Sphaeniscus* Becker) breed in the flowers of Labiatae.

Gymnaciura austeni (Munro)

Tephrella austeni Munro, 1935: 7.
Spheniscomyia neavei var. *chyuluensis* Munro, 1939: 7.
Aciura distigmoides Hering, 1941a: 196.
Gymnaciura austeni var. *concisa* Munro, 1955: 421.

Madagascan specimens examined agree with the description of this species by Munro (1935) and material from Zimbabwe, except that on the hind tibiae the black base is a little more than half the length of the tibia (half in mainland specimens).

MATERIAL EXAMINED. MADAGASCAR (EAST): 1 ♂, Ambodimanga (Ifanadiana district), 8. viii. 1958, F. Keiser (NHMB); 1 ♀, Amparafaravola, O. du lac Alaotra, 1921, R. Decary (MNHN).

DISTRIBUTION. Sierra Leone, Ethiopia, Kenya, Tanzania, Zimbabwe and Madagascar.

Genus ***Parasphenisco ides*** Hering

Parasphenisco ides Hering, 1941a: 197.

Notoxesis Munro, 1947: 143.

Two African species are placed here; one is widespread in the Malagasy subregion. Hosts are species of *Lippia* and *Lantana* (Verbenaceae).

Parasphenisco ides binarius (Loew)

Trypeta binaria Loew, 1861: 274.
Notoxesis binaria var. *adapta* Munro, 1947: 146.
Notoxesis binaria var. *septa* Munro, 1947: 146.

Madagascan specimens do not differ from mainland examples.

MATERIAL EXAMINED. MADAGASCAR (SAMBIRANO): 1 ♂, Nossi-Be, i. 1952, N. L. H. Krauss (NCIP); 2 ♀, Ambilobe, i. 1952, N. L. H. Krauss (NCIP). (EAST): 1 ♀, Navana-Antongil, 6 m, Maroantsetra district, 20–25. iii. 1958, B. Stuckenberg (NMSA); 3 ♂, 1 ♀, Tamatave, 1. xi. 1958, F. Keiser (NHMB).

DISTRIBUTION. Ethiopia, Kenya, Tanzania, Uganda, Rwanda, Burundi, Malawi, Zimbabwe, South Africa, Namibia, Madagascar, Réunion and Mauritius.

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